


AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Currently amended) The composition of ~~claim 1~~ Claim 33, wherein the hydrophilic component is ~~selected from the group consisting of at least one of a hydrophilic groups group, or a hydrophilic polymer, further comprising or a hydrophilic therapeutic, diagnostic, or prophylactic agent to be delivered to a cell or cell organelle.~~

3. (Currently amended) The composition of ~~claim 2~~ Claim 34, wherein the therapeutic, diagnostic, or prophylactic agent is ~~selected from the group consisting of at least one of a proteins protein, peptides peptide, nucleotide molecules molecule, saccharides saccharide, polysaccharides polysaccharide, small organic molecules molecule, and or combinations combination thereof.~~

 4. (Currently amended) The composition of ~~claim 1~~ Claim 2, wherein the hydrophobic polymer is ~~selected from the group consisting of at least one of a synthetic vinyl-type hydrophobic polymers polymer and their hydrophilic derivatives that become hydrophobic at the pH of the endosome, and a non-vinyl or naturally derived polymers naturally derived polymer and their hydrophilic derivatives that become hydrophobic at the pH of the endosome, a membrane disruptive peptides peptide, and or a phospholipid bilayer disrupting agents agent, and polymers that become hydrophobic upon exposure to a stimulus other than pH.~~

5. (Canceled)

6. (Currently amended) The composition of ~~claim 1~~ Claim 2, wherein the hydrophilic ~~groups group~~ are selected from the group consisting of is at least one of a hydroxyacids hydroxyacid, amines amine, thiols thiol, carboxyl groups group, amino acids acid, and or small molecules molecule comprising one of these groups.

7. (Canceled)

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8. (Currently amended) The composition of ~~claim 1~~ Claim 33, wherein the pH-sensitive linkage is ~~selected from the group consisting of at least one of an acetals acetal, orthoesters orthoester, cis-aconityl groups group, carboxylic acid hydrazones hydrazone, phosphamides phosphamide, esters ester, Schiff bases base, vinyl ethers ether, dithioacetals dithioacetal, tert butyl esters ester, carbamates carbamate, urethanes urethane, anhydrides anhydride, polysaccharides polysaccharide, amides amide, esters, thioureas thiourea, ureas urea, thioesters thioester, sulfonamides sulfonamide, phosphoramidates phosphoroamidate, and or amine N-oxides N-oxide.~~

9. (Currently amended) The composition of ~~claim 2~~ Claim 34, wherein the therapeutic, diagnostic, or prophylactic agent ~~to be delivered~~ is coupled to either the hydrophilic or the ~~membrane disruptive~~ hydrophobic component by a degradable or disruptable linkage.

10. (Currently amended) The composition of ~~claim 9~~ Claim 9, wherein the linkage is degradable upon exposure to a change in pH.

11. (Currently amended) The composition of ~~claim 10~~ Claim 10, wherein the pH-sensitive linkage is ~~selected from the group consisting of at least one of an acetals acetal, orthoesters orthoester, cis-aconityl groups group, carboxylic acid hydrazones hydrazone, phosphamides phosphamide, esters ester, Schiff bases base, vinyl ethers ether, dithioacetals dithioacetal, tert butyl esters ester, carbamates carbamate, urethanes urethane, anhydrides anhydride, polysaccharides polysaccharide, amides amide, esters, thioureas thiourea, ureas urea, thioesters thioester, sulfonamides sulfonamide, phosphoramidates phosphoroamidate, and or amine N-oxides N-oxide.~~

12. (Canceled)

13. (Currently amended) The composition of ~~claim 1~~ Claim 33, wherein the ~~conjugate composition~~ further comprises a ligand, ~~wherein the ligand specifically binding binds~~ to a target molecule.

14. (Currently amended) The composition of ~~claim 2~~ Claim 34, wherein the ~~therapeutic, diagnostic, or prophylactic agent to be delivered~~ is complexed to a polymeric component of the conjugate.

15. (Currently amended) The composition of ~~claim 1~~ Claim 33, ~~wherein the hydrophilic component is linked to the membrane disruptive component by a pH sensitive linkage, wherein the pH sensitive linkage is stable at a pH between 6.8 and 8 and disrupted at a pH less than 6.5, and the linkage will hydrolyze~~ hydrolyzed within about 30 to 60 minutes at a pH between 5.0 and 5.5.

16. (Currently amended) The composition of ~~claim 1~~ Claim 33 further comprising a pharmaceutically acceptable carrier for delivery of the conjugate to a cell or organelle.

17. (Currently amended) The composition of ~~claim 16~~ Claim 16, wherein the carrier is ~~selected from the group consisting of at least one of a carriers~~ carrier for systemic, local, or topical delivery of the conjugate.

18. (Currently amended) The composition of ~~claim 1~~ Claim 33 further comprising ~~a composition~~ an agent enhancing membrane penetration.

19. (Currently amended) The composition of ~~claim 2~~ Claim 34, wherein the ~~therapeutic, diagnostic, or prophylactic agent to be delivered~~ is ~~a nucleotide molecule selected from the group consisting of at least one of an~~ antisense nucleotide, ~~ribozymes~~ ribozyme, ~~ribozyme guide sequences~~ sequence, ~~triplex forming oligonucleotides~~ oligonucleotide, and or ~~genes~~ gene.

20-32. (Withdrawn)

33. (New) A composition for enhancing transport through a cellular membrane, comprising a hydrophilic conjugate having a hydrophobic component linked to a hydrophilic component by a pH-sensitive linkage, wherein the pH-sensitive linkage is stable at a pH between 6.8 and 8 and hydrolyzed at a pH less than 6.5 to release the hydrophobic component, and wherein the hydrophobic component is membrane-disruptive and allows enhanced transport through a cellular membrane only when released from the hydrophilic conjugate.

34. (New) The composition of Claim 33 further comprising a therapeutic, diagnostic, or prophylactic agent.

35. (New) The composition of Claim 33, wherein the hydrophobic component comprises a synthetic polymer.

36. (New) The composition of Claim 33, wherein the hydrophilic component comprises a polyalkylene oxide.

37. (New) The composition of Claim 33, wherein the pH-sensitive linkage comprises at least one of a acetal, orthoester, cis-aconityl group, carboxylic acid hydrazone, phosphamide, ester, Schiff base, vinyl ether, dithioacetal, tert butyl ester, carbamate, urethane, anhydride, polysaccharide, amide, thiourea, urea, thioester, sulfonamide, phosphoroamidate, or amine N-oxide.